



U.S. Department of Commerce  
BUREAU OF THE CENSUS

# Titanium Mill Products, Ingot, and Castings

JUNE 1983

ITA991(83)-6

Issued September 1983

The statistics in this publication are based on a survey of manufacturers and represent total U.S. shipments of titanium mill products, ingot, and castings. Estimates are included for companies whose reports were not received in time for tabulation.<sup>1</sup> A description of the survey methodology and related information appears in the January 1983 report for this series, *ITA991(83)-1*, issued May 1983.

Table 1. NET SHIPMENTS OF TITANIUM MILL PRODUCTS

| Product                           | June 1983 | May 1983 | June 1982 |
|-----------------------------------|-----------|----------|-----------|
| Total <sup>1</sup> .....          | 2,640     | 2,691    | 3,166     |
| Sheet and strip.....              | (2)       | (2)      | (2)       |
| Plate.....                        |           |          |           |
| Forging and extrusion billet..... | 1,364     | 1,183    | 1,701     |
| Bar and bat.....                  | 412       | 310      | 353       |
| Fastener stock and wire.....      |           |          | 59        |
| Extrusion.....                    |           |          |           |
| Pipe and tubing.....              | 864       | 1,198    |           |
| Other.....                        |           |          | 1,166     |

<sup>1</sup>Net shipments, total, is the sum of mill product shipments plus mill products consumed in the manufacture of fabricated products, less total receipts. Net shipments for each mill product category also includes the consumption of mill products in that category in the manufacture of other mill products. Detail may not add to the total because of this difference in definition.

<sup>2</sup>Data for sheet and strip, plate, extrusion (other than tubing), pipe and tubing, and other have been combined to avoid disclosing individual company data.

Table 2. TITANIUM INGOT, MILL PRODUCTS, AND CASTINGS: 1982 TO 1983

| Month and year | Ingot                |                       |                |                |                            | Mill products        |                |                                   | Castings             |                |
|----------------|----------------------|-----------------------|----------------|----------------|----------------------------|----------------------|----------------|-----------------------------------|----------------------|----------------|
|                | Pro-<br>duc-<br>tion | Con-<br>sump-<br>tion | Ship-<br>ments | Reci-<br>pents | Ending<br>inven-<br>tories | Pro-<br>duc-<br>tion | Reci-<br>pents | Net ship-<br>ments <sup>1,2</sup> | Pro-<br>duc-<br>tion | Ship-<br>ments |
|                |                      |                       |                |                |                            |                      |                |                                   |                      |                |
| 1983           |                      |                       |                |                |                            |                      |                |                                   |                      |                |
| June.....      | 5,048                | 5,114                 | 926            | 856            | 5,063                      | 3,134                | 357            | 2,640                             | 84                   | 41             |
| May.....       | 3,769                | 3,665                 | 1,002          | 968            | 5,221                      | 3,021                | 422            | 2,691                             | 81                   | 47             |
| April.....     | 3,657                | 3,446                 | 918            | 746            | 5,141                      | 2,567                | 198            | 2,479                             | 94                   | 42             |
| March.....     | 4,310                | 4,354                 | 1,151          | 1,181          | 5,017                      | 2,887                | 191            | 2,876                             | 100                  | 55             |
| February.....  | 3,698                | 3,360                 | 977            | 839            | 5,020                      | 2,418                | 224            | 2,633                             | 104                  | 61             |
| January.....   | 3,544                | 3,698                 | 621            | 892            | 4,938                      | 2,851                | 166            | 2,665                             | 83                   | 34             |
| 1982           |                      |                       |                |                |                            |                      |                |                                   |                      |                |
| Total.....     | 53,072               | 55,161                | 8,492          | 8,670          | (X)                        | 37,221               | 4,789          | 36,562                            | 797                  | 521            |
| December.....  | 3,024                | 3,014                 | 305            | 313            | 5,068                      | 2,336                | 164            | 2,869                             | 74                   | 37             |
| November.....  | 3,444                | 3,659                 | 595            | 532            | 4,107                      | 2,547                | 137            | 2,371                             | 72                   | 40             |
| October.....   | 3,598                | 3,829                 | 671            | 534            | 5,386                      | 2,357                | 307            | 2,159                             | 52                   | 43             |
| September..... | 3,392                | 3,407                 | 846            | 498            | 5,579                      | 2,877                | 379            | 2,994                             | 36                   | 36             |
| August.....    | 3,877                | 3,676                 | 466            | 589            | 5,884                      | 2,339                | 162            | 2,342                             | 60                   | 35             |
| July.....      | 3,284                | 3,118                 | 528            | 542            | 5,634                      | 2,433                | 144            | 2,382                             | 61                   | 35             |
| June.....      | 4,017                | 4,431                 | 653            | 588            | 5,411                      | 3,188                | 387            | 3,166                             | 64                   | 39             |
| May.....       | 3,610                | 4,480                 | 656            | 670            | 3,994                      | 3,084                | 357            | 2,946                             | 59                   | 45             |
| April.....     | 5,001                | 5,204                 | 769            | 806            | 6,405                      | 3,209                | 353            | 3,436                             | 69                   | 54             |
| March.....     | 6,858                | 7,320                 | 867            | 1,071          | 6,552                      | 4,361                | 704            | 4,454                             | 90                   | 59             |
| February.....  | 6,505                | 6,202                 | 973            | 1,252          | 6,686                      | 4,185                | 830            | 3,458                             | 83                   | 55             |
| January.....   | 6,452                | 6,222                 | 1,363          | 955            | 6,523                      | 4,475                | 825            | 3,655                             | 77                   | 43             |

<sup>1</sup>Revised by 5 percent or more from previously published figures. (X) Not applicable.

<sup>2</sup>See table 1 for more detailed data.

<sup>2</sup>Net shipments, total, is the sum of mill product shipments plus mill products consumed in the manufacture of fabricated products, less total receipts. Net shipments for each mill product category also includes the consumption of mill products in that category in the manufacture of other mill products. Detail may not add to the total because of this difference in definition.

Address inquiries concerning these figures to the U.S. Department of Commerce, Bureau of Industrial Economics, Materials Division, Washington, D.C. 20230, or to the Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Nathaniel Shelton, (301) 763-2529.

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Table 3. NET SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF TITANIUM MILL PRODUCTS: 1982 TO 1983

(Quantity in thousands of pounds; value in thousands of dollars)

| Month and year   | Manufacturers' net shipments (quantity) | Exports of domestic merchandise <sup>1</sup> |               | Percent exports to manufacturers' net shipments (quantity) | Imports for consumption <sup>4</sup>    |          | Apparent consumption <sup>5</sup> (quantity) | Percent imports to apparent consumption (quantity) |
|--|---|--|---------------|--|---|----------|--|--|
|  |   | Quantity                                     | Value at port |  | Estimated producers' value <sup>3</sup> | Quantity | Value <sup>5</sup>                           |  |
| JUNE 1983  |   |  |               |  |   |          |  |  |
| Total.....   | 3,566                                   | 371  | 4,350         | 4,233  | 10                                      | 194      | 2,017  | 3,389  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 2,290                                   | 269  | 2,497         | 2,430  | 12                                      | 20       | 173  | 2,041  |
| Titanium mill products.....  | 1,276                                   | 102  | 1,853         | 1,803  | 8                                       | 174      | 1,844  | 1,348  |
| MAY 1983   |   |  |               |  |   |          |  |  |
| Total.....   | 3,693                                   | 379  | 3,742         | 3,641  | 10                                      | 241      | 2,062  | 3,555  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 2,185                                   | 241  | 1,815         | 1,766  | 11                                      | 24       | 185  | 1,968  |
| Titanium mill products.....  | 1,508                                   | 138  | 1,927         | 1,875  | 9                                       | 217      | 1,877  | 1,587  |
| APRIL 1983   |   |  |               |  |   |          |  |  |
| Total.....   | 3,397                                   | 327  | 4,650         | 4,525  | 10                                      | 102      | 950  | 3,172  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 2,286                                   | 230  | 3,362         | 3,272  | 10                                      | 9        | 95   | 2,065  |
| Titanium mill products.....  | 1,111                                   | 97   | 1,288         | 1,253  | 9                                       | 93       | 855  | 1,107  |
| MARCH 1983   |   |  |               |  |   |          |  |  |
| Total.....   | 4,027                                   | 385  | 5,312         | 5,169  | 10                                      | 169      | 1,581  | 3,811  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 2,623                                   | 229  | 3,024         | 2,943  | 9                                       | 7        | 88   | 2,401  |
| Titanium mill products.....  | 1,404                                   | 156  | 2,288         | 2,226  | 11                                      | 162      | 1,493  | 1,410  |
| FEBRUARY 1983  |   |  |               |  |   |          |  |  |
| Total.....   | 3,610                                   | 124  | 2,627         | 2,556  | 3                                       | 162      | 1,467  | 3,648  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 2,297                                   | 56   | 1,111         | 1,081  | 2                                       | 25       | 234  | 2,266  |
| Titanium mill products.....  | 1,313                                   | 68   | 1,516         | 1,475  | 5                                       | 137      | 1,233  | 1,382  |
| JANUARY 1983   |   |  |               |  |   |          |  |  |
| Total.....   | 3,324                                   | 282  | 3,728         | 3,628  | 8                                       | 106      | 1,107  | 3,148  |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 1,964                                   | 212  | 2,497         | 2,430  | 11                                      | 6        | 85   | 1,758  |
| Titanium mill products.....  | 1,360                                   | 70   | 1,231         | 1,198  | 5                                       | 100      | 1,022  | 1,390  |
| 1982   |   |  |               |  |   |          |  |  |
| Total.....   | 47,021                                  | 7,200  | 100,606       | 97,901   | 15                                      | 2,166    | 22,269                                       | 41,987   |
| Titanium Ingot and forging and extrusion billet <sup>7</sup> ..... | 28,041                                  | 4,392  | 60,239        | 58,618   | 16                                      | 426      | 3,976  | 24,075   |
| Titanium mill products.....  | 18,980                                  | 2,808  | 40,367        | 39,283   | 15                                      | 1,740    | 18,293                                       | 17,912   |

(Z) Less than one-half of 1 percent.

<sup>1</sup> For a comparison of Standard Industrial Classification (SIC) codes, Schedule B export numbers, and TSUSA import numbers, see table 4 in the January report ITAS9301, p. 21.

<sup>2</sup> Source: Bureau of the Census report EM 546, U.S. Exports.

<sup>3</sup> These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1981 which are published in *Origin of Exports of Manufactured Products, 1981 (ASICAS) 3-5*, appendix B. Comparable adjustment factors for earlier years are based on similar factors developed for 1971 and 1972. The current adjustment factor for this report is 0.9731.

<sup>4</sup> Source: Bureau of the Census report EM 140-3, U.S. Imports for Consumption and General Imports.

<sup>5</sup> The value includes c.i.f. (cost, insurance, and freight) at the first port of entry in the United States plus U.S. import duties and other charges to the import point.

<sup>6</sup> Apparent consumption is derived by subtracting exports from the total of net shipments plus imports.

<sup>7</sup> Comparability of output, export, and import classifications for ingot and billet assume that bloom, sheet bar, and slab are reported as ingot or billet in the output numbers. Figures for imports of ingot and billet also include powder, crystal, and similar forms which are excluded from the output and export numbers.